MCI Telecommunications
Corporation

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Washington, DC 20006

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JUN 30 1998

June 30, 1998

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
1919 M Street, NW
Washington, D.C. 20554

Re: Ex Parte
Petitions to Implement Section 706 of the Telecommunications Act of 1996,
CC Docket Nos. 98-11, 98-26, 98-32, 98-91

Dear Ms. Salas:

On Monday, June 29, 1998, Glen Grochowski, Senior Engineer at MCI, Chandan Choudhary, Senior Policy Advisor at MCI, and I met with Carol Mattey, Melissa Newman, Jordan Goldstein, Michael Kende, and Jonathan Askin of the CCB Policy and Planning Division, and David Ward of the CCB Network Services Division, concerning petitions for regulatory relief under section 706 filed by Bell Atlantic, U S West Communications, Inc., Ameritech and SBC. The discussion and presentation emphasized the reasons why competitors need access to incumbent local exchange carrier xDSL equipment in order to promote widespread competition in the advanced services market.

Pursuant to section 1.1206(b)(1) of the Commission's rules, MCI hereby submits two copies of this Ex Parte with the Secretary of the Commission for inclusion in the dockets indicated above.

Sincerely,

Kecia Boney

Kecia Boney

Attachment

cc: C. Mattey
M. Newman
J. Askin
J. Goldstein
M. Kende
D. Ward

Definition of Digital Subscriber Line

- Digital Subscriber Line (DSL) signifies a modem, or a modem pair applied to a copper loop
- DSL technologies are high speed symmetric and asymmetric communication systems utilizing today's twisted pair copper infrastructure as a transport medium.
- There are many different DSL technologies which include:

Symmetric DSL	Asymmetric DSL
IDSL - ISDN DSL	CDSL* - Consumer DSL
SDSL - Single line DSL	ADSL - Asymmetric DSL
HDSL - High-bit rate DSL	VDSL - Very high data rate DSL
HDSL2 - High-bit rate DSL	
VDSL - Very high data rate DSL	

* Also referred to as G.lite, UDSL, ADSL lite

DSL System Summary

Technology	Copper Pairs	Symmetry	Bit Rates	Transmission Distances	Cost per System
IDSL	1	Symmetrical	128 kb/s	18 kft	$500
SDSL	1	Symmetrical	768 kb/s	12 kft	$1000
HDSL2	1	Symmertical	256 kb/s to 2.048 Mb/s	20 kft to 10 kft	$1300
HDSL	2	Symmetrical	384 kb/s 1.544 Mb/s 2.048 Mb/s	20 kft 12 kft (24 kft rptrd) 12 kft	$800
ADSL, CDSL, G.Lite, UDSL	1	Asymmetrical	Range DS 1.5 Mb/s - 8 Mb/s US 19 Kb/s - 1 Mb/s	18 kft for 1.5 Mb/s service and 12 kft for 6-8 Mb/s	$600
VDSL	1	Symmetrical	13 Mb/s 26 Mb/s	3 kft 1 kft	TBD
VDSL	1	Asymmetrical	DS 52 Mb/s US 6.4 Mb/s DS 26 Mb/s US 3.2 Mb/s DS 13 Mb/s US 1.6 Mb/s	1 kft 3 kft 4.5 kft	TBD

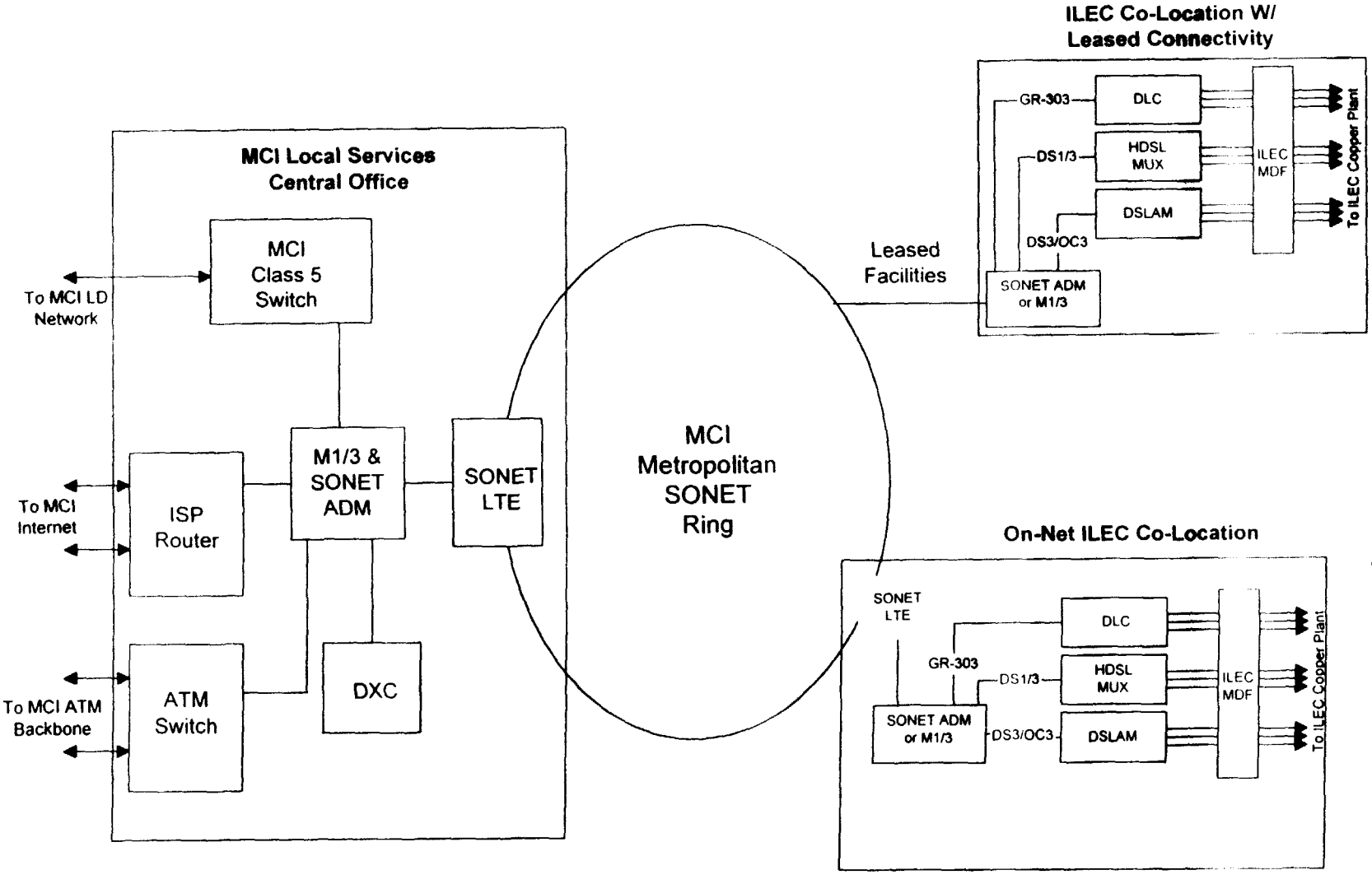
Loop Considerations

- Technology runs over continuous copper loop only
  - DLC systems only with sub-loop unbundling
- ADSL/VDSL can run on top of POTS with passive splitter installed
- HDSL/SDSL needs dry loop for operation
- No load coils. (Load coils act as a high frequency filter that will not pass the higher frequency signals used by the DSL technologies)
- Bridge taps acceptable but limited by length and number
- No repeatered loops
- CSA (Carrier Serving Area) test loops are used to define loop conditions for DSL testing. These test loops are characterized by mixed wire gauge and length, various bridge tap locations and leg distances, etc.
- Maximum transmission distances for DSL technologies is dependent on:
  - Transmission bit rates
  - Wire size (19, 22, 24, or 26 gauge)
  - Bridge taps

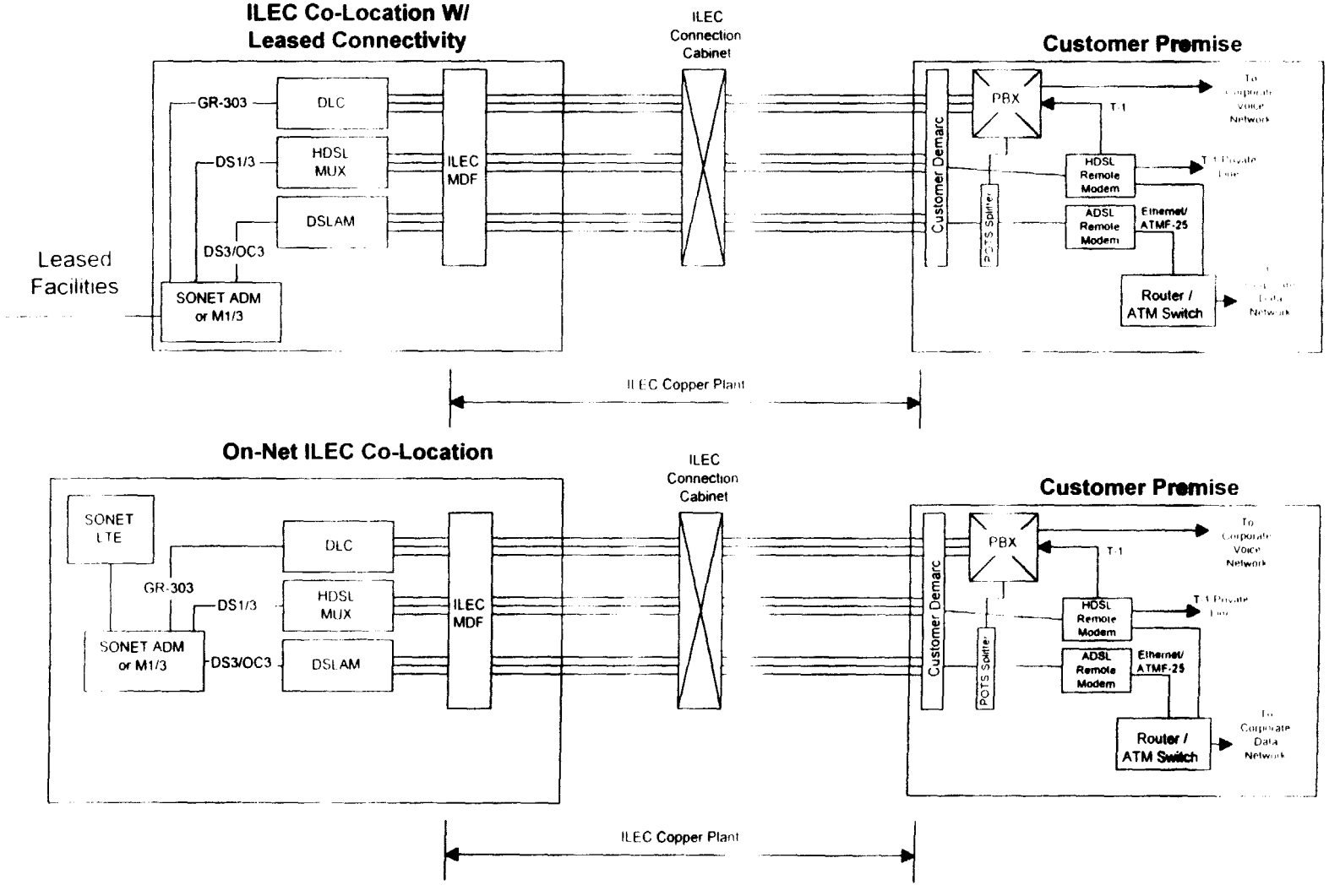
DSL Architecture Overview

- MCI Metropolitan Network Configuration
  - Shows MCI Metro Ring with On-Net MCI Collo and a Off-Net MCI Collo connected via leased facilities
- Large / Medium Business Customer Premise Configuration
  - Shows MCI Collo connected to large or medium business customers via a unbundled local loop.
  - Customers served with POTS lines, HDSL T1, and HDSL data traffic to corporate networks.
- Small Business / Residential Customer Premise Configuration
  - Shows MCI Collo connected to small business and residential customers via an unbundled local loop.
  - Customers served with POTS lines and high speed data to PC/workstations

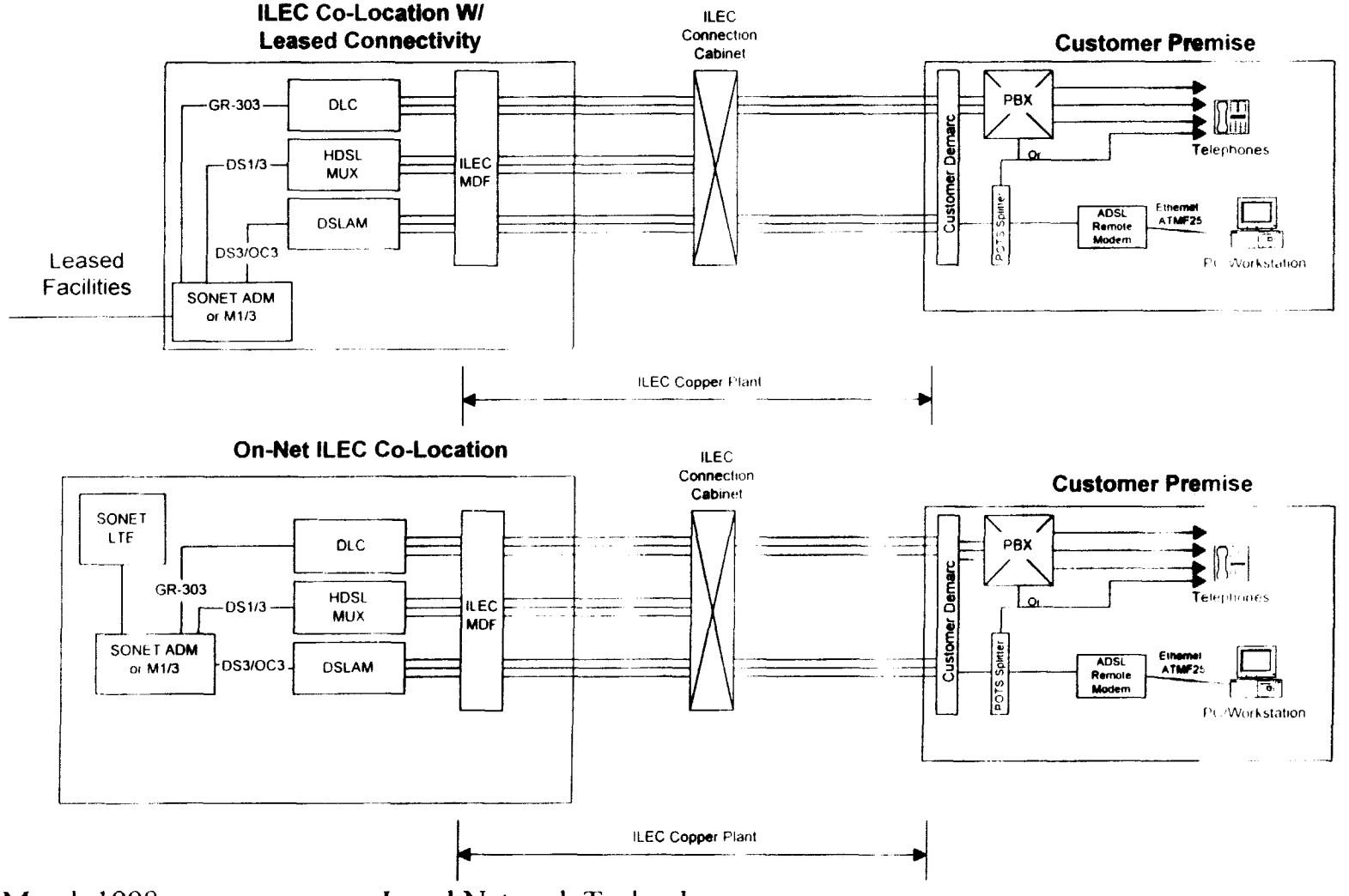
Network Architecture
MCI Metropolitan Network Configuration



Network Architecture
Large / Medium Business Customer Premise Configuration



Network Architecture
Small Business / Residential Customer Premise Configuration



Services

- Business
  - T-1 Replacement, Video Conferencing, WANs, Voice Trunks, Private Line Data Trunks, Data Network Access, Internet Access
- Residential
  - Internet Access, LAN Extension, Work At Home,

Regulatory / Contract Issues

- Address undefined / under-defined xDSL conditioned loop requirements
- Favorable and consistent xDSL loop pricing
- Drive cost of services down consistent with cost to provide those services
- Need further details / work on sub-loop unbundling
- Copper availability resolution (DLC deployment, new builds, etc)
- Re-define electronic functionality deployed in a collocation (No switching equipment allowed)
- Service resolution issues with respect to multiple service providers using a single copper pair for customer connection
- Process defined to obtain copper loop demographics from installed plant
- Spectrum / Plant management responsibility